

WHAT IS CLAIMED IS:

1. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected light patterned through plural patterns formed on a photo mask,

said system comprising a mechanism for uniformizing the light to be applied in such a manner that the intensity of said light in a predetermined area on the photo mask distributes within a range of $\pm 11.2\%$ of the average intensity of said light in said area.

2. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected light patterned through an exposure pattern formed on a photo mask, said semiconductor thin film being formed on a substrate held on a substrate stage,

said system comprising a mechanism for sequentially scanning the semiconductor thin film with the patterned light by individually or concurrently driving the photo mask and the substrate stage.

3. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected light patterned through an exposure pattern formed on a photo mask,

said system comprising a focusing mechanism for obtaining the focus of the patterned light on said predetermined region of the semiconductor thin film when the semiconductor thin film is exposed to the projected patterned light.

4. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected exposure beam patterned through a pattern formed on a photo mask,

said system comprising a tilt correcting mechanism for correcting the tilt of said patterned exposure beam relative to the semiconductor thin film.

5. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected exposure beam patterned through a pattern formed on a photo mask,

said system comprising an alignment mechanism for aligning the patterned exposure beam with reference to a mark formed on a substrate, on which said semiconductor thin film is deposited.

6. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected light patterned through a pattern formed on a photo mask,

said system comprising a mechanism for holding a substrate on a stage, said semiconductor thin film being deposited on said substrate.

7. A semiconductor thin film forming system for modifying a predetermined region of a semiconductor thin film by exposing the semiconductor thin film to a projected exposure beam patterned through a pattern formed on a photo mask,

said system comprising a composing mechanism for composing a plurality of laser beams into said exposure beam.

8. A system according to claim 7, wherein said plurality of laser beams are first and second laser beams, said composing mechanism composing said first and second laser beams in such a manner that said second laser beam is applied onto the semiconductor thin film with a delay relative to said first laser beam.

9. A semiconductor thin film forming system having a process chamber, said process chamber serving to modify a predetermined region of a semiconductor thin film by exposing the semiconductor thin film on a substrate to a projected light patterned through a pattern formed on a photo mask,

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said system comprising a mechanism for moving the substrate from said process chamber to a different process chamber without exposing the substrate to the atmosphere.

10. A system according to claim 9, wherein said different process chamber is an insulating film forming chamber for the formation of an insulating film on the substrate.

11. A system according to claim 9, wherein said different process chamber is a semiconductor film forming chamber for the formation of a semiconductor film on the substrate.

12. A system according to claim 9, wherein said different process chamber is a heat treatment chamber for treating the substrate with heat.

13. A system according to claim 9, wherein said different process chamber is a plasma treatment chamber for subjecting the substrate to a plasma treatment by treating the substrate with plasma.

14. A system according to claim 9, wherein said process chamber is a laser treatment chamber for modifying the predetermined region of the semiconductor thin film by exposing the semiconductor thin film on the substrate to a projected laser beam patterned through the pattern formed on the photo mask, said different process chamber being another laser treatment chamber.

15. A system according to any of claims 9-13, wherein said different process chamber comprises a plasma generating source for generating plasma in a predetermined area of said different process chamber, said substrate being placed in an area in said different process chamber other than said predetermined area.

16. A system according to claim 13, wherein said different process chamber comprises a plasma generating source for generating plasma in a predetermined area of said different process chamber, said different process chamber serving to subject said substrate to said plasma treatment by reacting an excited gas with a different gas, said excited gas being excited by the plasma

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generated in said predetermined area, said different gas being introduced into said different process chamber without passing through said predetermined area.

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